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Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (Original) A method for determining an arrival time of a vehicle at one or more locations along the travel route for the vehicle comprising the steps of:

generating a table including locations of the vehicle in a time sequence as the vehicle approaches each of the one or more locations and an ETA corresponding to each location;

transmitting signals periodically from the vehicle, each signal including information of vehicle location at the time of transmission; and

determining an arrival time for each transmitted location using the time sequenced location and ETA in the table.

2. Original) A method for mapping movement of a vehicle moving in a predetermined area comprising the steps of:

transmitting signals periodically from the vehicle, each signal including information of vehicle location at the time of transmission; and

constructing a travel path using the periodically transmitted signals.

3. (Original) A method for determining an arrival time of each of at least one in-transit vehicle at one or more locations along the travel route for each of the at least one vehicle comprising the steps of:

generating a table including locations of each of the at least one in-transit vehicles in a time sequence as each of the at least one vehicle approaches each of the one or more locations and an ETA corresponding to each location;

establishing a unique signal transmission time slot for each of the at least one in-transit vehicle;

transmitting signals periodically from each of the at least one in-transit vehicle during the

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unique signal transmission time slot established for said each of the at least one in-transit vehicle,
each signal being transmitted including location information of said each at least one in-transit
vehicle at the time of transmission;

 determining an arrival time for each of the at least one vehicle from the location
information transmitted during the time slot for said each of the at least one in-transit vehicle
using the time sequenced location and ETA corresponding to said each of the at least one in-
transit vehicle in the generated table.

 4. (Original) The method of claim 3, wherein there are a plurality of vehicles in-transit at
any one time and wherein

 said generating includes generating a table that includes locations of each of the plurality
of in-transit vehicles in a time sequence as each of the plurality of in-transit vehicles approaches
each of the one or more locations and an ETA corresponding to each location;

 establishing a unique signal transmission time slot for each of the plurality of in-transit
vehicles;

 transmitting signals periodically from each of the plurality of in-transit vehicles during
the unique signal transmission time slot established for said each in-transit vehicle, each signal
being transmitted including location information of said each in-transit vehicle at the time of
transmission;

 determining an arrival time for each of the plurality of in-transit vehicles from the
transmitted location information for said each in-transit vehicle using the time sequenced
location and ETA corresponding to said each in-transit vehicle in the generated table.

 5. (Original) The method of claim 3, wherein said establishing includes establishing a
unique time slot for each of the at least one in-transit vehicle so as to minimize signal collision.

 6. (Original) The method of claim 3, wherein said establishing includes synchronizing
the timing signals for signal transmission for each of the at least one in-transit vehicle.

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7. (Original) The method of claim 3, wherein a predetermined area in which the at least one in-transit vehicle travels is divided into at least two regions, and wherein said establishing establishes a unique time slot for each of the at least two regions.

8. (Original) The method of claim 3, further comprising the steps of:

establishing another time slot for each of the at least one in-transit vehicle and being at a different time said established time slot; and

transmitting non-location information from each of the at least one in-transit vehicle during said another time slot.

9. (Original) The method of claim 8, further comprising the steps of:

establishing a first transmission frequency for transmission of location information and a second transmission frequency for transmission of non-location information; and

wherein said transmitting includes transmitting location information using the first frequency during said established time slot and transmitting non-location information using the second frequency during said another established time slot.

10. (Original) A method for real-time tracking of at least one vehicle that is in-transit in a predetermined area comprising the steps of:

providing a plurality of signal receiving devices disposed throughout a region including the predetermined region so as to be capable of receiving signals being generated within the predetermined area;

establishing a communications network operably interconnecting each of the plurality of signal receiving devices;

transmitting signals periodically from each of the at least one in-transit vehicle, each signal being transmitted including location information of said each at least one in-transit vehicle at the time of transmission;

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receiving each of the periodically transmitted signals at one of the plurality of provided

receiving devices; and

determining if the receiving device receiving said each of the periodically transmitted

signals is the processing receiving device that is to process the transmitted signal.

11. (Original) The real-time tracking method of claim 10 further comprising the steps of:

forwarding said each of the periodically transmitted signals to one of the plurality of

receiving devices in the case where said determining determines that the device that received the

signal is not the processing receiving device; and

processing said each of the periodically transmitted signals in the case where said

determining determines that the device that received the signal is the processing receiving device,

wherein said processing includes processing each of said each of the periodically transmitted

signals for said at least one in-transit thereby tracking the movement of the at least in-transit

vehicle within the predetermined area.

12. (Currently Amended) A system for real-time tracking of at least one vehicle that is

in-transit in a predetermined area, comprising:

a signal transmission device for each of the at least one in-transit vehicle, each of said

signal transmission devices including a transmitter, a microprocessor operably coupled to the

transmitted and an applications program for execution on the microprocessor;

a plurality of signal receiving devices disposed throughout the predetermined area so as to

be capable of receiving signals being generated within the predetermined area;

a communications network operably interconnecting each of the plurality of signal

receiving devices; and

wherein said applications program including instructions and criteria for:

transmitting signals periodically from the transmitter, each periodic signal being

transmitted including location information of said at least one in-transit vehicle at the

time of transmission, and

determining the location of the in-transit vehicle at the time of ~~transmission.~~ transmission;

13. (Currently Amended) The real-time tracking system of claim 12, wherein each of said signal receiving devices includes a receiver, a microprocessor operably coupled to the receiver and an applications program for execution on the microprocessor; and

wherein said applications program includes instructions and criteria for:

receiving each of the periodically transmitted signals at one of the plurality of provided receiving devices, and

determining if the receiving device receiving said each of the periodically transmitted signals is the processing receiving device that is to process the transmitted ~~signal.~~ signal;

14. (Original) The real-time tracking system of claim 13, wherein said applications program includes instructions and criteria for:

forwarding said each of the periodically transmitted signals to one of the plurality of receiving devices in the case where said determining determines that the device that received the signal is not the processing receiving device; and

processing said each of the periodically transmitted signals in the case where said determining determines that the device that received the signal is the processing receiving device, wherein said processing includes processing each of said each of the periodically transmitted signals for said at least one in-transit thereby tracking the movement of the at least in-transit vehicle within the predetermined area.

15. (Original) The real-time tracking system of claim 12, wherein:

a unique time slot is defined for transmission of each periodically transmitted signal from the transmission device of each of the at least one in-transit vehicle and

the applications program for execution on the microprocessor of the signal transmission

device for each of the at least one in-transit vehicle further includes instruction and criteria for controlling the corresponding transmitter so that signals are transmitted there from only during the unique time slot.

16. (Original) The real-time tracking system of claim 12, wherein:

non-location information is transmitted from each of the at least one in-transit vehicle, and

the applications program for execution on the microprocessor of the signal transmission device for each of the at least one in-transit vehicle further includes instruction and criteria for controlling the corresponding transmitter so that non-location information signals are transmitted there from at a time different from the unique time slot.

17. (Original) The real-time tracking system of claim 14, further comprising a computer system operably coupled to the communications network and remote from the plurality of receiving units, said remotely located computer system including an applications program for accessing vehicle location and non-location information.

18. (Original) The real-time tracking system of claim 17, wherein the remotely located computer system is not operably coupled to a receiver so as to directly receive information signals from any of the transmission devices.

19. (Original) The real-time tracking system of claim 16 wherein the non-location information being transmitted includes at least one of driver identification information or vehicle passenger identification information.